

DETAILED ACTION

This action is in response to the response filed November 16, 2011. Claims 1-3, 5-12, and 14-22 are pending and have been considered below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-12, 14-19 and 22 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (US 6,785,487; hereinafter Maeda ('487)) in view of Maeda et al. (US 6,567,627; hereinafter Maeda ('627)).

Claim 1: Maeda ('487) discloses an image forming device with function selecting keys and at least one shortcut comprising:

a. display section displaying initial screen for performing function selection
(column 4, lines 56-65);

b. a setting screen for receiving an input of setting an image forming condition, the setting screen being displayed by performing the function selection a plurality of times from the initial screen (column 5, lines 21-36).

c. a display control section ('114');

Maeda ('487) does not explicitly disclose the setting screen includes a multifunction OK button for enabling the setting of the image forming condition inputted on the setting screen, the multi-function OK button being configured to perform at least two functions when the multi-function OK button receives an input from a user, the at least two functions including enabling the inputted setting of the image forming condition and creating and displaying a shortcut button on the initial screen for redisplaying the setting screen on which the image forming condition was set and wherein when the multi-function OK button is clicked, the display control section sets the image forming condition and creates the shortcut button for calling the setting screen to set the image forming condition. Maeda ('627) discloses a similar apparatus and method for an image forming condition displaying method that further discloses a "close" key that completes the allocation of functions with the settings of function key being 2 in 1, left staple, and dotted line. These settings are confirmed with the creation of a 2 in 1 shortcut (K2) in Figure 16. The shortcut created is displayed on the initial screen. After selecting the 2 in 1 shortcut, the setting screen 62 is redisplayed (column 7, lines 3-25). The display control unit is for displaying the item selection screens in response to the operation of the various function keys by the operator (column 9, lines 37-42). Maeda ('487) also does not explicitly disclose the image forming condition is for forming an image on a recording medium. Maeda ('627) further discloses receiving an input of setting an input forming condition, wherein when a user allocates a setting of a magnification level to a function provides copying under the setting when the start button is operated (column 5, lines 1-14; Figure 3). The image of the condition (50%) is inverted to have a dark

background, indicating the setting of the image forming condition. In a similar embodiment in Maeda ('627), after allocating the 2 in 1 condition to the Basic 2 shortcut button, the image of the Basic 2 shortcut button is also inverted to have a dark background, indicating that this condition is set to be output (column 7, lines 3-15; Figure 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a multifunction OK button for enabling the setting of the image forming condition inputted in Maeda ('487). One would have been motivated to include a multifunction OK button in order to increase operator efficiency.

Claim 2: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, and Maeda ('487) further discloses:

- a. image formation is performed by using image data, and the image forming condition is an image processing condition corresponding to the image data (column 9, lines 3-20).

Claim 3: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, and Maeda ('487) further discloses:

- a. the image forming condition is a post-processing condition (column 5, lines 25-36).

Claim 5: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, but does not explicitly disclose the short cut buttons are collectively displayed in a list according to a frequency of use. However, both Maeda and the applicant disclose a method intended for reducing the frequency of selecting functions by using short cut buttons, and it would have been obvious to one having ordinary skill in the art at the time the invention was made that one could create shortcuts by frequent selection of functions. One would have been motivated to create a shortcut according to frequency of use in order to automatically designate shortcuts that the user may need to access in a quick manner.

Claim 6: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, but neither reference explicitly discloses the short cut buttons are displayed in a condition that the short cut buttons are capable of being scrolled or turned over. However, Maeda ('487) discloses a touch screen (column 4, lines 45-55), which is a variation of scrolling through multiple shortcuts, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to enable the user to scroll over multiple shortcuts. One would have been motivated to enable the short cut buttons to be scrolled or turned over in order to allow the user to select multiple short cut buttons.

Claim 7: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, and Maeda ('487) further discloses:

a. information relating to a set content of the short cut button is displayed on the initial screen (column 6, lines 31-38/Figure 8).

Claim 8: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 7 above, and Maeda ('487) further discloses:

a. the set content of the short cut button is the selected function (column 6, lines 31-62).

Claim 9: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 7 above, and Maeda ('487) further discloses:

a. the set content of the short cut button is the image forming condition of which the setting input is performed (column 6, lines 31-62).

Claim 10: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, and Maeda ('487) further discloses:

a. a memory for storing screen information of a screen at a time of performing the setting input of the image forming condition (column 9, lines 29-42).

Claim 11: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, but neither reference explicitly discloses a read button for reading out the screen information stored in the memory is displayed on the initial screen. However, the conditions set on the screen are displayed to the user on the initial screen (Figure 1), and it would have been obvious to one having ordinary skill in the art at the time the invention was made that read button could be included in the initial screen. One would have been motivated to include a read button on the initial screen in order to enable the user to easily distinguish between settings that are not set for the current operation.

Claim 12: Maeda discloses an image forming device with function selecting keys and at least one shortcut comprising:

a. displaying an initial screen for performing function selection (column 4, lines 56-65);

Maeda ('487) discloses displaying a setting screen for performing a setting input of an image forming condition by performing the function selection a plurality of times from the initial screen, but does not explicitly disclose providing an OK button on the setting screen for enabling the setting of the image forming condition inputted on the setting screen, and further including performing, when the OK button receives an input,

at least a first function of enabling the inputted setting of the image forming condition and a second function of creating and displaying a shortcut button on the initial screen for redisplaying the setting screen on which the image forming condition was set and when the multi-function OK button is clicked, setting the image forming condition and creating the shortcut button for calling the setting screen to set the image forming condition. Maeda ('627) discloses a similar apparatus and method for an image forming condition displaying method that further discloses a "close" key that completes the allocation of functions with the settings of function key being 2 in 1, left staple, and dotted line. These settings are confirmed with the creation of a 2 in 1 shortcut (K2) in Figure 16. After selecting the 2 in 1 shortcut, the setting screen 62 is redisplayed (column 7, lines 3-25). Maeda ('487) also does not explicitly disclose the image forming condition is for forming an image on a recording medium. Maeda ('627) further discloses receiving an input of setting an input forming condition, wherein when a user allocates a setting of a magnification level to a function provides copying under the setting when the start button is operated (column 5, lines 1-14; Figure 3). The image of the condition (50%) is inverted to have a dark background, indicating the setting of the image forming condition. In a similar embodiment in Maeda ('627), after allocating the 2 in 1 condition to the Basic 2 shortcut button, the image of the Basic 2 shortcut button is also inverted to have a dark background, indicating that this condition is set to be output (column 7, lines 3-15; Figure 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a multifunction OK button for enabling the setting of the image forming condition inputted in Maeda ('487).

One would have been motivated to include a multifunction OK button in order to increase operator efficiency.

Claim 14: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, but neither reference explicitly discloses an area where the short cut button is displayed, is displayed in a condition that the area is capable of being scrolled or turned over. However, Maeda ('487) discloses a touch screen (column 4, 45-55), which is a variation of scrolling through multiple shortcuts, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to enable the user to scroll over multiple shortcuts. One would have been motivated to enable the short cut buttons to be scrolled or turned over in order to allow the user to select multiple short cut buttons.

Claim 15: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 12 above, and Maeda ('487) further discloses:

a. information relating to a set content of the short cut button is displayed on the initial screen (column 6, lines 31-38).

Claim 16: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 15 above, and Maeda ('487) further discloses:

a. the set content of the short cut button is the selected function (column 6, lines 31-62).

Claim 17: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 15 above, and Maeda ('487) further discloses:

a. the set content of the short cut button is the image forming condition of which the setting input is performed (column 6, lines 31-62).

Claim 18: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 12 above, and Maeda ('487) further discloses:

a. screen information of the setting screen at a time that the setting input of the image forming condition is performed, is stored in a memory (column 9, lines 29-42).

Claim 19: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 18 above, and Maeda ('487) further discloses:

a. on the initial screen, display is performed according to the screen information stored in the memory (column 9, lines 29-42).

Claim 22: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claim 1 above, and Maeda ('487) further discloses the image forming condition is a parameter to be set for image formation (column 5, lines 21-36). Maeda ('487) discloses creating a shortcut key with a shortcut key registration process.

3. Claims 20 and 21 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (US 6,785,487; hereinafter Maeda ('487)) in view of Maeda et al. (US 6,567,627; hereinafter Maeda ('627)) and further in view of Funaki (US 6,707,471).

Claims 20 and 21: Maeda ('487) and Maeda ('627) disclose an image forming device with function selecting keys and at least one shortcut as in Claims 1 and 12 above, however neither reference explicitly discloses the setting screen includes a cancel button for cancelling the setting of the image forming condition on the setting screen, where the cancel button is configured to perform at least two functions when the cancel button receives an input, the at least two functions including cancelling the inputted setting of the image forming condition and preventing a display of the shortcut button for redisplaying the setting screen on which the image forming condition was set on the initial screen. Funaki discloses a similar apparatus and method for an image forming

condition displaying method that further discloses a cancel button for specifying the cancellation of processing of entered data (column 7, lines 51-60). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a cancel button in the setting screen for canceling the setting of the image forming condition inputted on the setting screen where the cancel button is configured to perform at least two functions when the cancel button receives an input, the at least two functions including cancelling the inputted setting of the image forming condition and preventing a display of the shortcut button for redisplaying the setting screen on which the image forming condition was set on the initial screen in Maeda. Using the known technique of including a cancel button to cancel the setting of a condition and creation of a shortcut button in the interface of Maeda would have been obvious to one of ordinary skill.

Response to Arguments

4. Applicant's arguments filed March 7, 2011 have been fully considered but they are not persuasive.

Claims 1 and 12: Applicant argues the teachings of Maeda ('487) and Maeda ('627) fail to disclose or suggest a "multifunction OK button being configured to perform at least two functions when the multifunction OK button receives an input, the at least two functions including enabling the inputted setting of the image forming condition [for forming an image on a recording medium] and creating and displaying a shortcut button on the initial screen for redisplaying the setting screen on which the image forming

condition was set and wherein when the multi-function OK button is clicked, the display control section sets the image forming condition and creates the shortcut button for calling the setting screen to set the image forming condition.” The Examiner respectfully disagrees in view of the above rejections of Claims 1 and 12. Maeda ('627) further discloses receiving an input of setting an input forming condition, wherein when a user allocates a setting of a magnification level to a function provides copying under the setting when the start button is operated (column 5, lines 1-14; Figure 3). The image of the condition (50%) is inverted to have a dark background, indicating the setting of the image forming condition. In a similar embodiment in Maeda ('627), after allocating the 2 in 1 condition to the Basic 2 shortcut button, the image of the Basic 2 shortcut button is also inverted to have a dark background, indicating that this condition is set to be output (column 7, lines 3-15; Figure 9). The magnification level setting is included to provide an example of the image forming condition for forming an image on a recording medium when the shortcut button is inverted. In a similar embodiment in Maeda ('627), after allocating the 2 in 1 condition to the Basic 2 shortcut button, the image of the Basic 2 shortcut button is also inverted to have a dark background, indicating that this condition is set to be output (column 7, lines 3-15; Figure 9). These conditions are set on a setting screen, and not a completely different screen as indicated in the applicant's arguments. The “close” key operates as the multi-function OK button by completing the allocation of functions with the settings of the function key being 2 in 1, left staple, and dotted line. These settings are confirmed with the creation of a 2 in 1 shortcut (K2) in Figure 16. The shortcut created is displayed on the initial

screen. After selecting the 2 in 1 shortcut, the setting screen 62 is redisplayed (column 7, lines 3-25; Figure 16).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR ABDUL-ALI whose telephone number is (571)270-1694. The examiner can normally be reached on Monday-Friday 10:30-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boris Pesin can be reached on 571-272-4070. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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